

REMARKS

Reconsideration of the pending application is respectfully requested. Claims 1-25 remain pending in the present application. Applicant's Attorney appreciates Examiner's allowance of Claim 22 and the acknowledgement of allowable subject matter in Claims 7, 12-14, and 19-21. However, Applicant's Attorney believes that Claims 1-25, as currently amended, are in a condition for allowance.

Claim Objections

Examiner has objected to Claims 17 and 22 for lack of clarity and precision of the claim language. Applicant's Attorney has amended Claims 17 and 22 in accordance with suggestions proposed by Examiner. Therefore, Applicant's Attorney respectfully requests said rejections be withdrawn.

35 U.S.C. § 102 Rejections

Claims 1, 2, 4-6, 9, 17 and 18 are rejected under 35 U.S.C. §102(e) as being anticipated by Sundet et al. (U.S. Patent No. 6,521,011). Applicants Attorney respectfully traverses Examiner on this ground for rejection.

Sundet et al. teaches:

In one embodiment, the method of making the self-supporting pleated filter includes forming a plurality of pleats in a filter media that extend along a front face and a rear face. The pleats include a plurality of pleat tips and sloping side surfaces generally perpendicular to the direction of pleating. At least one reinforcing strip oriented in the direction of pleating is bonded to the pleat tips on the front face to form a pleated filter. Sundet et al., col. 1, ln. 66-col. 2, ln. 6.

Applicant is currently claiming in Claim 1 an adhesive fastening material longitudinally extending the length of the support band. Such a configuration strengthens the support band

throughout the length of the band. Sundet et al. fails to disclose having an adhesive fastening material longitudinally extending the length of the support band and hence fails to disclose the present invention. Additionally, Claims 2, 4-6, 9, 17 and 18 depend from Claim 1 and therefore have this claim limitation through claim dependency. Since Sundet et al. fails to teach each limitation of the invention claimed in Claim 1, Applicants Attorney respectfully requests said rejection be withdrawn.

Claims 23-25 are rejected under 35 U.S.C. §102(e) as being anticipated by Sundet et al. (U.S. Patent No. 6,521,011). Applicants Attorney respectfully traverses Examiner on this ground for rejection.

Claim 23 is currently amended to include continuously applying a thin longitudinally extending adhesive fastening band of preselected breadth and thickness to one of the faces of each support strip. As previously shown, Sundet et al. fails to disclose the continuous application of an adhesive onto a support strip. Additionally, Claims 24 and 25 depend from Claim 23 and hence have the claim limitations thereof through claim dependency. Since Sundet et al. fails to disclose each and every claim limitation of Claims 23-25, Applicant's Attorney respectfully requests said rejection be withdrawn.

35 U.S.C. § 103 Rejections

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sundet et al. (U.S. Patent No. 6,521,011) in view of Sommer et al. (U.S. Patent 5,618,324). Applicants Attorney respectfully traverses Examiner on this ground for rejection. Sommer et al. teaches:

The reinforcing strips 13, 14 are arranged in parallel to the lateral strips 11, 12. The reinforcing strips 13, 14 are also taken off rollers 23, 24 and, via heatable contact pressure rollers 25, 26, are glued onto the filter element 10 or are welded on by ultrasonic welding processes. Sommer et al., col. 4, lns. 15-20.

Sommer et al. fails to teach or suggest a support strip including a thin preselectively controlled thickness and breadth binding band of adhesive fastening material longitudinally extending the length of the support band. As previously shown, Sundet et al. also fails to teach a band of adhesive fastening material longitudinally extending the length of the support band. Therefore, neither Sommer et al. or Sundet et al., alone or in combination, teach the invention currently claimed in Claim 1, from which Claim 3 depends. Since the combination of Sommer et al. and Sundet et al. fails to teach or suggest the currently claimed invention, Applicant's Attorney respectfully requests said rejection be withdrawn.

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sundet et al. (U.S. Patent No. 6,521,011) in view of Choi (U.S. Patent No. 6,165,244). Applicants Attorney respectfully traverses Examiner on this ground for rejection. Claim 8 too has the limitation of a support strip including a thin preselectively controlled thickness and breadth binding band of adhesive fastening material longitudinally extending the length of the support band through claim dependency which is not taught in Sundet et al., as previously shown. Choi makes no disclosure of a support band having an adhesive material. Consequently, the combination of Sundet et al. and Choi fails to teach or suggest the invention as claimed in Claim 8, therefore Applicant's Attorney respectfully requests said rejection be withdrawn.

Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sundet et al. (U.S. Patent No. 6,521,011) in view of Navarre et al. (U.S. Patent No. 5,965,091). Applicants

Attorney respectfully traverses Examiner on this ground for rejection. Claim 10 too has the limitation of a support strip including a thin preselectively controlled thickness and breadth binding band of adhesive fastening material longitudinally extending the length of the support band through claim dependency which is not taught in Sundet et al., as previously shown. Navarre et al. fails to teach a support band having an adhesive material. Consequently, the combination of Sundet et al. and Navarre et al. fails to teach or suggest the invention as claimed in Claim 10, therefore Applicant's Attorney respectfully requests said rejection be withdrawn.

Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sundet et al. (U.S. Patent No. 6,521,011) in view of Homonoff et al. (U.S. Patent No. 4,765,812). Applicants Attorney respectfully traverses Examiner on this ground for rejection. Claim 11 too has the limitation of a support strip including a thin preselectively controlled thickness and breadth binding band of adhesive fastening material longitudinally extending the length of the support band through claim dependency which is not taught in Sundet et al., as previously shown. Homonoff et al. fails to teach a support band having an adhesive material. Consequently, the combination of Sundet et al. and Homonoff et al. fails to teach or suggest the invention as claimed in Claim 11, therefore Applicant's Attorney respectfully requests said rejection be withdrawn.

Claims 15 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sundet et al. (U.S. Patent No. 6,521,011) in view of Kahlbaugh et al. (U.S. Patent Application Publication No. US 2003/0167742 A1). Applicants Attorney respectfully traverses Examiner on this ground for rejection. Claims 15 and 16 also have the limitation of a support strip including a

thin preselectively controlled thickness and breadth binding band of adhesive fastening material longitudinally extending the length of the support band through claim dependency which is not taught in Sundet et al., as previously shown. Kahlbaugh et al. teaches:

It is noted that for some arrangements a sinusoidal (weave or pleat-like) arrangement can be provided even though sufficient body is not provided by the media to retain a truly pleated configuration. Several methods for accomplishing this are foreseeable. In the first, the "body" can be provided by having only one or a few layers of material (in the media) possess sufficient body. For example, one or two layers of scrim in a multilayer system can be enough for this body without requiring all of the layers to possess it. In addition or alternatively, support layers of material within, or on one side or both sides of, the stacked arrangement may be used to provide this body or mechanical integrity. Such a composite can be made using commercially available synthetic or cellulosic fibers as the support layers.

A second approach to providing a sinusoidal arrangement without having the coarse scrim layers form pleats, is to utilize a mechanical framework to maintain the material in the pleated construction. A schematic with respect to this is illustrated in FIG. 9. In FIG. 9, mechanical stays 40 are depicted, with media 41 threaded thereon.

Other approaches may involve sufficient thermal, chemical or physical treatments of the material to provide sufficient rigidity to retain a pleated configuration or corrugation. Pleat tip bonding approaches may also be used. Also, metal ribbons or wires positioned within the various composite layers can be used to maintain a pleated configuration.

From the above considerations, it will be apparent that an advantage of the present invention is that it may be applied in materials providing for a wide variety of geometric configurations. Thus it can be applied in a great many filter constructions to advantage. As indicated above, the properties of the materials may be selected so that the depth needed, for efficient operation, can be varied as desired. Kahlbaugh et al., para. [0212]-[0215].

As shown in the above excerpt, Kahlbaugh et al. fails to teach a support strip including a thin preselectively controlled thickness and breadth binding band of adhesive fastening material longitudinally extending the length of the support band. Consequently, the combination of

Sundet et al. and Kahlbaugh et al. fails to teach or suggest the invention as claimed in Claims 15 and 16, therefore Applicant's Attorney respectfully requests said rejection be withdrawn.

Conclusion

Applicant's Attorney asserts that the instant application is in condition for allowance. Applicant's Attorney therefore respectfully requests that the Examiner allow the pending claims. However, if the Examiner believes there are other unresolved issues in this case, Applicant's Attorney of record would appreciate a call at (502) 584-1135.

Respectfully submitted,

MIDDLETON REUTLINGER

A handwritten signature in cursive script, appearing to read "Steve Witters", is written over a horizontal line.

Steve A. Witters, Reg. No. 53,923
2500 Brown & Williamson Tower
Louisville, KY 40202
(502) 584-1135 phone
(502) 561-0442 fax
switters@middreut.com